# VEGETABLES
## BY SALTING

*Beans*
*Cabbage*
*Cauliflower*
*Corn*
*Cucumbers*
*Green Peppers*
*Green Tomatoes*
*Onions*
*Rutabaga*
*Turnips*

WHEN CONTAINERS AND EQUIPMENT for canning or freezing are not available, brining is a practical way to preserve some vegetables, such as corn, green and wax beans, and cauliflower. Other vegetables which are often put in dry storage or pickled may be salted for variety. While foods preserved by salting may not have the best color, flavor, texture, and probably food value, many people enjoy them, especially sauerkraut.

Preserving with salt may be done by using either dry salt or brine. When a small amount of salt is added to vegetables containing sugar, lactic acid is formed and fermentation results, as in kraut. When large amounts of salt are used, growth of yeasts and bacteria is prevented and no fermentation results, as in salted corn.

**Equipment and supplies.** Stone jars or crocks are the preferred containers for preserving foods with salt. They are easily cleaned, and there is no danger of off-flavors being absorbed, as there is with wooden containers. Wooden kegs and barrels can be used, however, but unless they are new they should be thoroly cleaned and scalded (or possibly charred or paraffined) to remove undesirable flavors.

Several thicknesses of cheesecloth or muslin should be spread over the vegetables. Boards (not yellow or pitch pine) about an inch thick make the best covers for large containers. Heavy plates can be used with small jars or crocks.

The covers should be small enough to go inside the containers. They

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are placed over the cloth and held down by heavy weights in order to keep all the food under the brine all the time. Clean stones (other than limestone), glazed brick, or glass jars filled with sand make good weights. Limestone and iron weights should not be used because when they come in contact with the brine they produce an unpleasant brownish color and prevent the necessary fermentation.

Scales, measures, and vegetable slicers are needed for good results.

Pure medium-coarse salt is most satisfactory and economical. Fine salt, to which some substance has usually been added to prevent caking, should not be used.

## DRY SALTING

When cut into small pieces, cabbage (both the usual kind and Chinese cabbage, also called celery cabbage), turnips, rutabagas, and green or wax beans can be preserved with dry salt; corn can also be preserved in this way. The dry salt dissolves in the juices of the vegetable to form a brine.

With sauerkraut, in which only 2½ percent of salt is used, a great deal of fermentation takes place. With corn, in which 25 percent as much salt (by weight) is used as vegetable, there is little or no fermentation.

### SAUERKRAUT (made with ordinary cabbage)

Sauerkraut is usually made in the fall during cold weather. Kraut made during the summer may ferment at too high a temperature and a poor product result.

Shred cabbage fine and discard the core. Weigh and salt the shredded cabbage, using 2½ percent as much salt as cabbage by weight (4 ounces of salt to 10 pounds of cabbage, or 1 pound of salt to 40 pounds of cabbage). Mix cabbage and salt or pack in alternate layers and tamp to remove air and start extraction of juice. Cover with clean cloth and board or plate. Place weight on cover.

Keep cabbage (and other shredded vegetables) under the brine during fermentation. A scum will form on top of the brine in a day or two. Skim it off carefully every day or it will tend to destroy the acidity, break down the vegetables, weaken the acid content, and darken the product.

When the scum has been removed, cover the kraut again with clean cheesecloth and replace the cover and the weight. Wash and boil the cloth daily and dry it in the sun for use the next day.

The best temperature for fermentation or curing is between 65° and 70° F. Ten days to 4 weeks are required for the process. Too low temperatures will retard fermentation, and too high temperatures may cause slimy brine and spoilage. When bubbles cease to rise, fermentation is complete.

When properly cured, this sauerkraut is a light yellow color. It should then be stored in a cool place. Kraut may be taken from the jar as needed, if enough liquid is left to cover what remains. The kraut may also be canned (see next page).

## SAUERKRAUT (made with Chinese cabbage)

Chinese cabbage makes good sauerkraut. It has more juice than that made with ordinary cabbage and the juice, which is spicier, makes a tasty beverage or appetizer. The late varieties of Chinese cabbage, since they contain more sugar, produce a better flavored kraut than the early varieties.

The procedure for making sauerkraut from Chinese cabbage is the same as that for ordinary cabbage (page 2).

## SAUER RÜBEN (sour turnip)

Select turnips of any white variety which are in perfect condition. They should be fresh, young, and tender, as well as sweet and juicy.

Shred or grind the turnips, mix with 2½ percent of salt by weight (4 ounces of salt for each 10 pounds of turnips), and pack in stone jars. Press down (do not tamp) and sprinkle the top liberally with salt. Fit cover inside the jar and weight it down. If the turnips are of prime quality there should be enough juice to cover the top in about 24 hours.

During the period of fermentation, which will require 15 to 20 days, keep the turnips at a temperature of 70° to 75° F. When fermentation is complete, store in a cool place in original containers or pack in glass jars and store. Keep the turnips submerged in the brine to prevent their discoloring or drying.

## SOUR RUTABAGA

Rutabagas can be handled in the same way as white turnips. As they are firmer and sweeter than turnips, "kraut" made from them has a better texture and flavor than turnip "kraut".

## STORING SOUR VEGETABLES

If kraut is made early in the season or if it cannot be kept in a cool place (40° to 60° F.) after fermentation stops, some other method must be used to prevent spoilage. Canning it in glass jars or enamel-lined tin cans will preserve it.

To can kraut, heat it to the boiling point in its own brine or in a weak brine made of 1 ounce of salt to 1 quart of water, or ½ cup of salt to 1 gallon of water. Fill glass jars to ½ inch of the top and tin cans to ¼ inch of top at once. Seal cans or, if glass jars are used, partially seal them at this time and complete the seal after the jars are taken from the hot-water bath. Place quart jars or cans in boiling water ("hot-water bath") and process them for 15 minutes, counting time after the water begins to boil.

## SALTED CORN

Select corn in the milk stage. Husk, remove silk, and cook in boiling water for 10 minutes. Cut from cob and weigh. Mix corn and salt, using 1 pound of salt to 4 pounds of corn. If scales are not available, use 1 cup of salt to 1 quart of corn. Pack in container. Cover with cloth and a board or plate and weight down.

If enough brine is not formed to cover the corn, add more brine, using ½ pound (¾ cup) of salt to a quart of water. Store in a cool place. The large amount of salt prevents the growth of yeasts and bacteria, so no fermentation takes place.

To prepare salted corn for table use, soak thoroly, changing water several times. Cook and serve with butter or cream and seasoning.

## BRINING

Vegetables that do not contain enough juice or which are not to be cut can be preserved most effectively by covering them with brine. Such vegetables need to be freshened in clear water before being cooked or made into pickles.[1] Strength of brine needed for different vegetables follows:

| *Vegetable* | *Brine* | *Amount of water to 1 pound of salt* | *Approximate salt in solution* |
|---|---|---|---|
| Cucumbers (for dill pickles) | Weak | 19 pints | 5% |
| Finely cut string or wax beans<br>Green tomatoes<br>Cucumbers (for pickles other than dill) | Medium | 9 pints | 10% |
| Green peppers<br>Cauliflower | Strong | 5½ pints | 15% |
| Onions | Very strong | 4 pints | 20% |

Wash, dry, and weigh the vegetables. Pack vegetables in jar, leaving space for the brine. Make enough brine to half fill the container (a gallon of brine for a two-gallon jar).

After about 24 hours add ½ pound of salt (¾ cup) for every 5 pounds of vegetables. Then add ⅛ pound (3 tablespoonfuls) of salt once each week for 4 or 5 weeks, or until the vegetable is cured. When adding salt it should be placed on the cover and allowed to dissolve gradually.

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[1]For information on making pickles send for HEE 215, "Suggestions for Making Pickles." *Address* COLLEGE OF AGRICULTURE, Urbana, Illinois.

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